



A.D. 1857 . . . . . Nº 11.

## Stereoscopes.

LETTERS PATENT to William Henry Phillips, of 16, Essex Street, Strand, for the Invention of "Improvements on Stereoscopes."

Sealed the 30th June 1857, and dated the 1st January 1857.

PROVISIONAL SPECIFICATION left by the said William Henry Phillips at the Office of the Commissioners of Patents, with his Petition, on the 1st January 1857.

I, WILLIAM HENRY PHILLIPS, of 16, Essex Street, Strand, do hereby declare 5 the nature of the Invention for "Improvements on Stereoscopes," to be as follows:—

This Invention has for its object improvements on stereoscopes. For these purposes the frame or case of a stereoscope is made in two parts, hinged or connected together at or near the base of each in such manner that the eye10 pieces may be brought to or moved from each other with greater facility than heretofore to accommodate for different sights. The movement of the two parts may be accomplished by hand when holding a stereoscope to the eyes, or by a screw, or other convenient means. The lenses and eye-pieces, in place of being mounted in sliding tubes, as heretofore, are each mounted on a tube, produced by winding a plate or strip of sheet metal or other suitable material spirally, and the elongating or contracting of such tube may be by a screw, or other convenient means. The reflector is placed in the interior of the instrument and at the back thereof, and the light (which enters from the front) is reflected on to the picture, which is placed in a slightly inclined position. And in order to give a better finish to the picture, it is arranged to be seen through

20 in order to give a better finish to the picture, it is arranged to be seen through openings of another photographic picture, representing a frame, or curtain, or other suitable device, according to taste, and such second picture may be either

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fixed or moveable in respect to the stereoscope, and also in respect to the pictures used therewith. When separate from the pictures, different pictures may be viewed through the openings of the same second picture.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said William Henry Phillips in the Great Seal Patent Office on 5 the 1st July 1857.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM HENRY PHILLIPS, of 16, Essex Street, Strand, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the First day of January, in the year of our Lord 10 One thousand eight hundred and fifty-seven, in the twentieth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said William Henry Phillips, Her special licence that I, the said William Henry Phillips, my executors, administrators, and assigns, or such others as I, the said William Henry Phillips, my executors, administrators, and assigns, 15 should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "Improvements in Stereoscopes," upon the condition (amongst others) that 20 I, the said William Henry Phillips, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and 25 immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said William Henry Phillips, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:—

This Invention has for its object improvements in stereoscopes. For these purposes the frame or case of a stereoscope is made in two parts, hinged or connected together at or near the base of each in such manner that the eye pieces may be brought to or moved from each other with greater facility than heretofore to accommodate for different sights. The movement of the two 35 parts may be accomplished by hand when holding a stereoscope to the eyes,

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or by a screw, or other convenient means. The lenses and eye-pieces, in place of being mounted in sliding tubes, as heretofore, are each mounted on a tube, produced by winding a plate or strip of sheet metal or other suitable material spirally, and the elongating or contracting of such tube may be by a screw, or 5 other convenient means. In order to give a better finish to the picture, it is arranged to be seen through openings of another photographic picture, representing a frame, or curtain, or other suitable device, according to taste, and such second pictures may be either fixed or moveable in respect to the stereoscope, and also in respect to the pictures used therewith. When separate 10 from the pictures different pictures may be viewed through the openings of the same second picture.

And in order that my said Invention may be most fully understood and readily carried into effect, I will proceed to describe the Drawing hereunto annexed.

## DESCRIPTION OF THE DRAWING.

Figure 1 is a side view of a stereoscope arranged according to my Invention, so that the eye pieces can be brought nearer together or moved further from each other, as may be required. a is the base of the instrument; and b, b, are the two parts of the stereoscope which carry the eye-pieces; these two parts 20 are connected to the two ends of the base, but the material of which the instrument is made is sufficiently flexible to yield to the extent necessary for the adjustment of the eye-pieces at the point c; between the two parts b, b, a hinge joint connects them together. Thus it will be seen that when the milled head d is turned so as to screw the right and left handed screws e and f into or out of their respective nuts  $e^1$  and  $f^1$ , the two parts b, b, of the instrument which carry the eye pieces g, g, will either be drawn towards or separated from each other by turning on the hinge or joint at c.

Figure 2 is a side view of a similar stereoscope, with eye pieces mounted on a spirally-wound strip of metal or other material. The material which I 30 prefer to employ is leather, and one end of the strip of which each tube for carrying an eye-piece is composed is glued or cemented to the upper part of the instrument, and the other end of the strip is glued or cemented to the eye-piece, which in this form of instrument I prefer to make of wood. The strip is then coiled up into a spiral, in the way shewn in the Drawing, and inside 35 the tube so formed strings or tapes are fixed to each convolution of the strip to prevent the spiral tube pulling out to too great an extent. In order to facilitate the uniform drawing out and pushing in of two eye-pieces, I arrange them so that they may be moved both together by means of screws. a is a plate of metal to which the two eye-pieces are fixed; and b is another similar plate of

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metal attached to the parts of the instrument which carry the eye-pieces. Between the plates of metal a and b is a milled head c, by which right and left handed screws d and e are turned so as to screw them into or out of their nuts. In this way eye-pieces are moved to and from the top of the instrument, and the required adjustment is obtained. The plates a and b will spring sufficiently to permit of the distance between the eye-pieces being adjusted as in the instrument already described.

Figure 3 is a side view of another form of stereoscope, in which the spiral tube is made of such a size as to carry both the eye-pieces, and to become, in fact, the body of the stereoscope; one end of the strip of which the spiral tube is constructed is attached to the piece forming the top of the instrument and carrying the eye pieces, and the other end to a ring at the bottom, and this ring has a flap or cover hinged to it. The picture to be examined by means of the instrument is placed on this flap; if the picture is on paper, or other opaque material, the flap is held slightly open to admit sufficient light to the picture; but if the picture be transparent, it is viewed by looking through it and through the ground glass with which the flap is glazed. In order to give a better finish to pictures viewed through a stereoscope, I permanently fix on the base of the instrument a stereoscopic picture of a curtain, a frame, a group of rocks, or other suitable object, and in the centre of each portion of this stereoscopic picture a hole is made, so that when an ordinary stereoscopic picture is slipped into the instrument under the first it will appear through the holes in it, and when the two are viewed together the ordinary stereoscopic picture will appear surrounded by a stereoscopic representation of the object from which the upper or permanent picture was taken, and this forms a foreground to the moveable picture. Or, in place of fixing the foreground picture in the instrument, it may be mounted on a card so as to surround the ordinary picture, but then it will be necessary to have a separate foreground picture for each slide, whereas when the foreground picture is fixed in the instrument one foreground can be used with any number of ordinary slides.

In witness whereof, I, the said William Henry Phillips, have hereunto set my hand and seal, this First day of July, in the year of our Lord One thousand eight hundred and fifty-seven.

WILLIAM HENRY PHILLIPS. (L.S.)

Witness,

GEO. HASELDEN.

LONDON:

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